

2 [f)] e) repeating b) through d) for each of a plurality of pixels having
3 first coordinates in the determined span.

1 ³ ~~8.~~ (Amended) The method of claim ¹ ~~6~~, further comprising:

2 [f)] e) defining a base value, and wherein the first dimension of the
3 virtual frame buffer is a power of the base value.

1 ¹⁶ ~~18.~~ (Amended) [The method of claim 14,] A computer-imple-
2 mented method for accessing representations of pixels of a display panel in a
3 frame buffer, the display panel having a plurality of pixels each pixel having a
4 first coordinate and a second coordinate, the method comprising the steps of:

5 a) determining a span of first coordinates of pixels of the display
6 panel;

7 b) selecting a second tile span representing a length of a tile of the
8 display panel along the second coordinates of pixels of the dis-
9 play panel;

10 c) defining a virtual frame buffer having a first dimension at least
11 as large as the span of the first coordinates times the second tile
12 span;

13 d) generating a virtual address indicating a first coordinate and a
14 second coordinate for a pixel from the first dimension of the vir-
15 tual frame buffer and the first and second coordinates of the
16 pixel; and

17 e) performing one of a reading operation and a writing operation
18 of a representation of the pixel in a memory cell of the frame buffer identified
19 by the virtual address;

20 wherein the first and second coordinates of the pixel are stored as bit
21 representations and d) comprises:
22 f) removing a quantity of bits from the bit representation of the
23 second coordinate of the pixel equal in number to the length of
24 the second tile span and concatenating the quantity bits with the
25 bits of the bit representation of the first coordinate of the pixel;
26 and
27 g) concatenating with the result of f) bits of the bit representation of
28 the second coordinate of the pixel less the quantity of bits.

REMARKS

Claims 1-29 are pending after this amendment. Claims 1, 8, and 18 have been amended.

The objections to the drawings are noted. Enclosed is a Letter to the Chief Draftsperson, together with substitute drawing sheets.

The Examiner rejected claims 1-17 and 19-29 under 35 U.S.C. §103(a) as being unpatentable over Applicant's Fig. 1 in view of Nishide. This rejection is respectfully traversed.

Claim 1 recites:

"A computer-implemented method for remapping between pixel coordinate space and memory address space, comprising the steps of:

- a) defining a phantom port containing a plurality of memory addresses;
- b) generating an address to the phantom port using a conventional addressing scheme;
- c) determining an address in memory address space corresponding to the generated phantom port address; and
- d) accessing the address in memory address space."

The claimed method thus provides a technique for remapping between pixel coordinate space and memory address space, and thereby facilitating an improvement in the speed of access to a frame buffer. The claimed method employs a phantom port which performs remapping among coordinates and